[0039] In embodiments, the computer systems **106** of the service provider **101** can provide for an electronic marketplace. An electronic marketplace can be a virtual market for buyers and sellers implemented through a network. An electronic marketplace can provide an interface for sellers such that a plurality of sellers can provide items to be listed for consumption in the virtual market. An electronic marketplace can also provide an interface for buyers such that buyers may select and order from among the listed items. In embodiments, buyers and sellers can include users **102** and suppliers **103**. For example, users **102** can submit orders **104** for items listed in the electronic marketplace. In embodiments, the suppliers **103** can provide physical items for fulfilling orders **104** and/or the suppliers **103** can provide 3D manufacturing instructions **107** (as at **105**) that can be used to produce order-fulfilling MOD items **110** on-demand via a 3D manufacturing apparatus **108**. In embodiments, orders **104** by users **102** for items can be fulfilled by providing a MOD item **110** or by providing a non-MOD item. In embodiments, the service provider **101** can also be a supplier **103**.

[0040] In embodiments, the service provider **101** can instruct delivery of the MOD item **110** to the users **102**. One or more delivery options may be provided by the service provider **101**. In one aspect, the MOD item **110** may be delivered via a 3D manufacturing apparatus **108** owned by the user **102**, as at **112**. For example, the 3D manufacturing instructions **107** can be provided directly to the user **102**, and the MOD item **110** may be produced, using the 3D manufacturing instructions **107**, on a 3D printer at the home or office of the user **102**. In other aspects, a 3D manufacturing apparatus **108** not owned or controlled by the user **102**, but owned or controlled by or otherwise accessible to the service provider **101**, may produce the MOD item **110** using the 3D manufacturing instructions **107**. As a non-limiting example, the MOD item **110** can be produced and stored at a pickup location for the user **102** to retrieve at the convenience of the user **102**, as at **114**. As another non-limiting example, the MOD item **110** can be printed or manufactured—for example using a 3D manufacturing apparatus **108** located in a warehouse or on a truck owned by the service provider **101**—and then delivered to the user **102** according to delivery instructions provided by the user **102**, as at **116**.

[0041] An illustrative example of the operation of the system **100** depicted in FIG. **1** follows. A faucet handle breaks off while a person (the user **102** in this illustrative example) is cleaning up after dinner, making adjustment of the water pressure/temperature difficult. The user **102** utilizes his or her smartphone to access an electronic marketplace network page (provided by the computer systems **106** of a service provider **101** in this example). The user **102** locates the replacement faucet handle on the network page, and places an order (i.e., **104** in FIG. **1**) for the faucet handle, requesting remote pick-up. Upon completing the order **104**, the user **102** departs for the pick-up location indicated by the website. Meanwhile, the computer systems **106** retrieve a digital 3D model of the faucet handle from a database maintained by the original vendor of the faucet (i.e., interact with a supplier **103** at **105** to obtain 3D manufacturing instructions **107**). The computer systems **106** then convert the 3D model into printing instructions for a 3D printer (i.e., the 3D manufacturing instructions **107** for the 3D manufacturing apparatus **108**). The printing instructions are used to produce the faucet handle as a MOD item **110** by a 3D printer located at a storage facility while the user **102** is en route. The MOD item **110** is picked up (i.e., **114**) by the user **102** and immediately installed to replace the broken faucet handle, thereby quickly resolving the faucet issue.

System Architecture

[0042] FIG. **2** depicts an illustrative system or architecture **200** in which techniques for providing one or more MOD items **110** to users **102** via computer systems **106** may be implemented. In architecture **200**, one or more users **102** may utilize user computing devices **204**(1)-(N) (collectively, user devices **204**) to access a browser application **206** (e.g., a web browser) or a user interface (UI) accessible through the browser application **206**, via one or more networks **212**. The "browser application" **206** can be any browser control or native application that can access and display a network page or other information. In some aspects, the browser application **206** may be hosted, managed, and/or provided by a computing resources service or service provider, such as by utilizing one or more service provider computers **216**. The one or more service provider computers **216** may, in some examples, provide computing resources such as, but not limited to, client entities, low latency data storage, durable data storage, data access, management, virtualization, hosted-computing-system-based software solutions, electronic content performance management, etc. The one or more service provider computers **216** may also be operable to provide web or network hosting, computer application development, and/or implementation platforms, combinations of the foregoing, or the like to the one or more users **102**.

[0043] In one illustrative configuration, the user devices **204** may include at least one memory **208** and one or more processing units or processor(s) **210**. The processor(s) **210** may be implemented as appropriate in hardware, computer-executable instructions, firmware, or combinations thereof. Computer-executable instruction or firmware implementations of the processor(s) **210** may include computer-executable or machine-executable instructions written in any suitable programming language to perform the various functions described. The user devices **204** may also include geo-location devices (e.g., a global positioning system (GPS) device or the like) for providing and/or recording geographic location information associated with the user devices **204**.

[0044] The memory **208** may store program instructions that are loadable and executable on the processor(s) **210**, as well as data generated during the execution of these programs. Depending on the configuration and type of user device **204**, the memory **208** may be volatile (such as random access memory (RAM)) and/or non-volatile (such as read-only memory (ROM), flash memory, etc.). The user device **204** may also include additional removable storage and/or non-removable storage including, but not limited to, magnetic storage, optical disks, and/or tape storage. The disk drives and their associated computer-readable media may provide non-volatile storage of computer-readable instructions, data structures, program modules, and other data for the computing devices. In some implementations, the memory **208** may include multiple different types of memory, such as static random access memory (SRAM), dynamic random access memory (DRAM), or ROM.

[0045] Turning to the components of the memory **208** in more detail, the memory **208** may include an operating system and one or more application programs or services for implementing the features disclosed herein via the browser application **206** or dedicated applications (e.g., smart phone